Claims

1. A method for changing the distribution of the loading pressure prevailing in the press nip of a shoe press, which shoe press comprises a number of adjacent loading elements (K) acting on the press shoe (70), the first end of said elements being supported on the supporting beam (12) of the shoe press and the other end on the press shoe (70), **characterized** in that the loading elements (K) are moved in the machine direction (MD) in the space between the press shoe (70) and the supporting beam (12) by acting on the loading element (K) at least at the end adjacent to the press shoe in such manner that the end adjacent to the press shoe is moved in the machine direction (MD) in relation to the press shoe (70), and that the end of the loading element adjacent to the supporting beam (12) can be caused to freely assume a position in relation to the supporting beam (12), preferably at least during the transfer.

2. A method according to claim 1, **characterized** in that the loading element (K) is acted on directly or via a transmission.

3. A method according to claim 1 or 2, **characterized** in that the loading element is acted on by at least one bar element, which is moved in the transverse direction (CD) of the machine.

4. A method according to any one of claims 1 - 3, **characterized** in that the loading element (K) is acted on via a transmission, wherein an eccentric element acts on the loading element while the eccentric element is acted on by a bar element.

5. A method according to any one of claims 1 - 4, **characterized** in that the loading element is acted on by an eccentric toothed gear, which is rotated by a toothed bar element.

6. A method according to any one of claims 1 - 5, **characterized** in that a projection part (28) formed at the end of the loading element (K) adjacent to the press shoe is moved between guide surfaces (31, 32) extending in the machine direction (MD) while transfer elements

laid in the transverse direction of the machine produce a movement in the machine direction (MD).

7. A method according to any one of claims 1 - 6, **characterized** in that a pressure medium is supplied into the space between the supporting beam (12) and the end of the loading element (K) adjacent to the supporting beam to reduce lateral forces.

8. A method according to any one of claims 1 - 7, **characterized** in that the distribution of the loading pressure is adjusted during operation of the machine.

9. A method according to any one of claims 1 - 8, **characterized** in that the distribution of the loading pressure is adjusted continuously on the basis of measurement data.

10. A method according to any one of claims 1 - 9, **characterized** in that the press beam (70) is acted on by a loading element (K) comprising a cylinder-piston unit.

11. An apparatus for changing the loading pressure prevailing in the press nip of a shoe press, said shoe press comprising a number of adjacent loading elements acting on the press shoe (70), the first end of said elements being supported on the supporting beam (12) of the shoe press and the other end on the press shoe (70), **characterized** in that the apparatus comprises means for moving at least the end of the loading element (K) adjacent to the press shoe (70) in the machine direction (MD) and means for reducing lateral forces between supporting beam and the end of the loading element adjacent to the supporting beam (12).

12. An apparatus according to claim 11, **characterized** in that the means for moving at least the end of the loading element (K) adjacent to the press shoe (70) comprise at least one transfer element (225, 226, 185) arranged in conjunction with the press shoe (70), which transfer element is movable in the transverse direction of the machine and by means of which the backing element (28) of the loading element (K) is moved directly or via a transmission mechanism.

13. An apparatus according to claim 11 or 12, **characterized** in that the transfer means moving the loading element (K) comprise actuating devices arranged in or near the end area of the press shoe (70).

14. An apparatus according to any one of claims 11 - 13, **characterized** in that the loading element (K) is a cylinder-piston combination.

15. An apparatus according to any one of claims 11 - 14, **characterized** in that it comprises guide surfaces (31, 32; 200) and/or guide elements (80, 180) arranged in conjunction with the press shoe (70) for guiding the motion of the loading element, especially to make it move in the machine direction (MD).

16. An apparatus according to any one of claims 11 - 115, **characterized** in that the transfer element (225, 226) is provided with a guide surface (227, 228; 235, 236) and the loading device is provided with a mating surface (229, 230, 161) so that the guide surface moves the loading device by the mating surface.

17. An apparatus according to any one of claims 11 - 16, **characterized** in that the transfer means comprise two bar elements (225, 226) which together influence the position of the loading element in the machine direction (MD).

18. An apparatus according to any one of claims 11 - 17, **characterized** in that the transfer means consist of an eccentric wheel, such as an eccentric toothed gear (186), which is driven by a toothed bar element (185) connected to the actuating devices.

19. An apparatus according to any one of claims 11 - 18, **characterized** in that the means for reducing the lateral forces between the supporting beam (12) and the loading element (K) end adjacent to the supporting beam comprise at least one conduit (C3, 22) for conveying a pressure medium into the space between the supporting beam (12) and the loading element (K).

20. An apparatus according to any one of claims 11 - 19, **characterized** in that the adjusting devices are arranged in a space formed in the press shoe (K).